

In re Application of:)	
Jay Paul Drummond, et al.)	Art Unit: Unknown
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Serial No.:)	
Unknown)	
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Filed:)	
(Herewith))	
)	
For:)	
Method and System for)	
Connecting Services To An)	
Automated Transaction Machine)	

Box Patent Application
Commissioner of Patents and Trademarks
Washington, D.C. 20231

Kindly amend the above identified application prior to examination as follows:

Kindly change the title to:

In the Specification

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This application claims benefit pursuant to 35 U.S.C. § 120 of Application Serial No. 09/505,594 filed February 16, 2000 which claims benefit pursuant to 35 U.S.C. § 119(e) of Application Serial No. 60/133,579 filed May 11, 1999 and Application Serial No. 60/120,506 filed February 17, 1999.

Kindly replace the paragraph that begins on page 5, line 4 with the following paragraph:

It is an object of an exemplary form of the present invention to provide an ATM in which transaction devices may be more easily connected.

Kindly substitute the paragraph that begins on page 5, line 6 with the following paragraph:

It is an object of an exemplary form of the present invention to provide an ATM in which the amount of time it takes to add a transaction function device to the ATM is reduced.

Kindly amend the paragraph that begins on page 5, line 8 with the following paragraph:

It is a further object of an exemplary form of the present invention to provide an ATM in which the possibility of installing a wrong driver for a device in the ATM is reduced.

Kindly replace the paragraph that begins on page 5, line 10 with the following paragraph:

It is a further object of an exemplary form of the present invention to provide an ATM in which it is easier to install device drivers in the ATM.

Kindly replace the paragraph that begins on page 5, line 12 with the following paragraph:

It is a further object of an exemplary form of the present invention to provide an ATM in which device drivers are easier to incorporate into ATM programs.

Kindly replace the paragraph that begins on page 5, line 14 with the following paragraph:

It is a further object of an exemplary form of the present invention to provide an ATM in which transaction devices have properties of object-oriented services in the ATM.

Kindly replace the paragraph that begins on page 5, line 16 with the following paragraph:

It is a further object of an exemplary form of the present invention to run an ATM which includes services that encapsulate the low-level hardware functionality of a device and to present only high-level object oriented methods and events for controlling the device.

Kindly replace the paragraph that begins on page 6, line 1 with the following paragraph:

It is a further object of an exemplary form of the present invention to provide an ATM which includes an application program and other software components in the ATM which include properties of an object-oriented device.

Kindly replace the paragraph that begins on page 6, line 4 with the following paragraph:

It is a further object of an exemplary form of the present invention to provide an ATM which includes a transaction service which operates to automatically install its own drivers when the service is installed in the ATM.

Kindly replace the paragraph that begins on page 6, line 7 with the following paragraph:

It is a further object of an exemplary form of the present invention
to provide an ATM in which services directly communicate with
other services in the ATM.

Kindly replace the paragraph that begins on page 6, line 9 with the following paragraph:

It is a further object of an exemplary form of the present invention
to provide an ATM in which services control the functionality of
other services in the ATM.

Kindly replace the paragraph that begins on page 6, line 11 with the following paragraph:

It is a further object of an exemplary form of the present invention
to provide an ATM in which services may be dynamically added
and removed without disabling the entire ATM.

Kindly replace the paragraph that begins on page 6, line 13 with the following paragraph:

It is a further object of an exemplary form of the present invention
to provide an ATM in which many services are attached.

Kindly replace the paragraph that begins on page 6, line 15 with the following paragraph:

It is a further object of an exemplary form of the present invention
to provide an ATM in which a service may be attached to the ATM
at a great distance from the main housing of the ATM.

Kindly replace the paragraph that begins on page 6, line 17 with the following paragraph:

It is a further object of an exemplary form of the present invention
to provide an ATM in which services are connected to the ATM
through a network.

Kindly replace the paragraph that begins on page 6, line 19 with the following paragraph:

It is a further object of an exemplary form of the present invention
to provide an ATM in which services are connected to the ATM
with different types of network typographies and protocols.

Kindly replace the paragraph that begins on page 6, line 21 with the following paragraph:

It is a further object of an exemplary form of the present invention
to provide an ATM in which services issue events remotely across

a network when there is a change in the state of the service in the ATM.

Kindly replace the paragraph that begins on page 7, line 1 with the following paragraph:

It is a further object of an exemplary form of the present invention to provide an ATM in which services invoke method calls remotely across a network to control other services in the ATM.

Kindly replace the paragraph that begins on page 7, line 3 with the following paragraph:

It is a further object of an exemplary form of the present invention to provide an ATM which uses a service proxy to enable a service to communicate with another service in the ATM.

Kindly replace the paragraph that begins on page 7, line 5 with the following paragraph:

It is a further object of an exemplary form of the present invention to provide an ATM which passes service proxies across a network between different services and programs in the ATM.

Kindly replace the paragraph that begins on page 7, line 7 with the following paragraph:

It is a further object of an exemplary form of the present invention
to provide an ATM which operates to store service proxies in a
central repository located on a network in the ATM.

Kindly replace the paragraph that begins on page 7, line 9 with the following paragraph:

It is a further object of an exemplary form of the present invention
to provide an ATM which services can look up the required service
proxy by querying the central repository of proxies on the network
in the ATM.

Kindly replace the paragraph that begins on page 7, line 12 with the following paragraph:

It is a further object of an exemplary form of the present invention
to provide an ATM server that can coordinate the functionality of a
plurality of network ATM work station services.

Kindly replace the paragraph that begins on page 7, line 14 with the following paragraph:

It is a further object of an exemplary form of the present invention
to provide an ATM that can quickly connect and disconnect with
services.

Kindly replace the paragraph that begins on page 7, line 16 with the following paragraph:

It is a further object of an exemplary form of the present invention
to provide an ATM that can quickly connect and disconnect with
other ATMs.

Kindly replace the paragraph that begins on page 7, line 18 with the following paragraph:

It is a further object of an exemplary form of the present invention
to provide a personal ATM that is personal to a user.

Kindly replace the paragraph that begins on page 7, line 20 with the following paragraph:

It is a further object of an exemplary form of the present invention
to provide a personal ATM that is operative to store information
for a plurality of personal accounts belonging to a user.

Kindly replace the paragraph that begins on page 8, line 1 with the following paragraph:

It is a further object of an exemplary form of the present invention
to provide a personal ATM that is operative to coordinate with
another ATM to withdraw money.

Kindly replace the paragraph that begins on page 8, line 3 with the following paragraph:

It is a further object of an exemplary form of the present invention
to provide a personal ATM that is operative to coordinate with
another ATM to deposit checks.

Kindly replace the paragraph that begins on page 8, line 5 with the following paragraph:

It is a further object of an exemplary form of the present invention
to provide a personal ATM that is operative to coordinate with
another ATM to transfer value between personal accounts.

Kindly replace the paragraph that begins on page 8, line 7 with the following paragraph:

It is a further object of an exemplary form of the present invention to provide a personal ATM that is operative to pay for the dispense of items at a dispenser.

Kindly replace the paragraph that begins on page 8, line 9 with the following paragraph:

It is a further object of an exemplary form of the present invention to provide a personal ATM that is operative to coordinate with a point of sale terminal to transfer value.

Kindly replace the paragraph that begins on page 8, line 11 with the following paragraph:

It is a further object of an exemplary form of the present invention to provide an ATM that is operative to upload a user interface application to another computer system for interfacing with the ATM.

Kindly replace the paragraph that begins on page 8, line 13 with the following paragraph:

It is a further object of an exemplary form of the present invention to provide a personal ATM that is operative as a service to allow

software applications to interface with the personal ATM to
perform transactions.

Kindly replace the paragraph that begins on page 8, line 16 with the following paragraph:

It is a further object of an exemplary form of the present invention
to provide a Personal Digital Assistant operated as a personal
ATM.

Kindly replace the paragraph that begins on page 8, line 18 with the following paragraph:

It is a further object of an exemplary form of the present invention
to provide a cell phone operated as a personal ATM.

Kindly replace the paragraph that begins on page 8, line 20 with the following paragraph:

It is a further object of an exemplary form of the present invention
to provide a smart card operated as a personal ATM.

Kindly replace the paragraph that begins on page 9, line 1 with the following paragraph:

It is a further object of an exemplary form of the present invention to provide a host ATM that is operative to interface with a personal ATM.

Kindly replace the paragraph that begins on page 9, line 3 with the following paragraph:

It is a further object of an exemplary form of the present invention to provide a host dispenser that is operative to interface with a personal ATM.

Kindly replace the paragraph that begins on page 9, line 5 with the following paragraph:

It is a further object of an exemplary form of the present invention to provide a point of sale device that is operative to interface with a personal ATM.

Kindly replace the paragraph that begins on page 9, line 7 with the following paragraph:

Further objects of exemplary forms of the present invention will be made apparent in the following Best Modes For Carrying Out Invention and the appended claims.

Kindly replace the paragraph that begins on page 9, line 9 with the following paragraph:

The foregoing objects are accomplished in one exemplary embodiment of the invention by an ATM that includes a network for attaching devices. This network serves as a communication link between the ATM application software operative in the main computer system of the ATM and the transaction function devices that comprise functional elements in the ATM. Examples of such transaction function devices include cash dispensers, cash acceptors, card readers, depositories, and printers. However, embodiments of the present invention may encompass a new form of these transaction function devices called transaction services. Transaction services have properties of objects, similar to objects in object oriented programming languages such as C++ or Java®. Transaction services such as a print service, accept method calls remotely across the network for performing such functions as printing text or delivering a printed receipt. In addition, services can issue events remotely in other services. For example, a printer service can invoke an event in an application program when the printer service is out of paper. ATM application programs can also include elements of an object oriented service. In this way all components whether hardware or software have properties of

objects that adhere to the same set of protocols. Thus the exemplary embodiment of the present invention is an ATM that is created by assembling service objects.

Kindly replace the paragraph that begins on page 54, line 11 with the following paragraph:

Thus the system and method for connecting services to an ATM of the present invention achieves at least one of the above stated objectives, eliminates difficulties encountered in the use of prior devices and systems, solves problems and attains the desirable results described herein.

In the Claims

Kindly replace claim 25 with the following amended claim:

25. (once amended) A method comprising:

- (a) connecting a transaction service in a host automated transaction machine, wherein the transaction service includes at least one transaction function device, and wherein the host automated transaction machine includes a lookup service;
- (b) registering the transaction service with the lookup service, including storing a copy of service proxy in association with the lookup service;
- (c) acquiring by a personal ATM through a wireless network port on the host automated transaction machine, a copy of the service proxy from the lookup service;
- (d) providing at least one input to an input device on the personal ATM;
- (e) invoking a method of the service proxy through operation of the personal ATM responsive to the at least one input;

- (f) operating the transaction function device of the transaction service responsive to the method invoked.

Kindly add new claims 44-96:

44. Apparatus comprising:

a host ATM including a cash dispenser, at least one processor and at least one wireless network port, wherein the cash dispenser is operative to dispense cash from the host ATM responsive to communication with at least one portable personal ATM through the at least one wireless network port.

45. The apparatus according to claim 44, wherein the personal ATM comprises a phone.

46. The apparatus according to claim 44, wherein the personal ATM comprises a PDA.

47. The apparatus according to claim 44, wherein the personal ATM comprises a notebook computer.

48. The apparatus according to claim 44, wherein the personal ATM comprises a pager.
49. The apparatus according to claim 44, wherein the communication with the personal ATM through the at least one wireless network port comprises a transfer of electronic money from the personal ATM.
50. The apparatus according to claim 44, wherein the host ATM further comprises at least one data store in operative connection with the at least one processor, and wherein the at least one wireless network port is operative to deliver at least one service proxy from the host ATM to the personal ATM.
51. The apparatus according to claim 50, wherein the at least one service proxy comprises a service proxy for a cash dispenser service.
52. The apparatus according to claim 50, wherein the host ATM further comprises a lookup service, and wherein the lookup service is operative to cause the host ATM to deliver the at least one service proxy.
53. The apparatus according to claim 44, wherein the host ATM includes at least one processor, and wherein the data store includes a plurality of interface pages, and

wherein at least one of the interface pages is delivered through the at least one wireless network port to the personal ATM.

54. The apparatus according to claim 53, wherein the at least one of the interface pages includes instructions in at least one of HTML, XML, WML and JavaScript.
55. The apparatus according to claim 53, wherein the at least one data store in the host ATM includes a plurality of display screen service proxies, wherein at least one of the plurality of interface pages corresponds to one of the display screen service proxies, and wherein the host ATM is operative to deliver a first display screen service proxy and the at least one of the interface pages corresponding to the first display screen service proxy through the at least one wireless network port.
56. The apparatus according to claim 55, wherein the host ATM is operative to output the first display screen service proxy responsive to receipt of the at least one lookup message received from the personal ATM through the at least one wireless network port.
57. The apparatus according to claim 50, wherein the host ATM further comprises a network banking service, and wherein the at least one service proxy delivered from the at least one wireless network port is a service proxy for the network banking service.

58. The apparatus according to claim 50, wherein the service proxy delivered by the host ATM includes a service proxy for the cash recycler service.
59. The apparatus according to claim 44, and further comprising a personal ATM, wherein the personal ATM comprises at least one input device, wherein the host ATM is operative to dispense cash responsive to at least one input to the at least one input device.
60. The apparatus according to claim 59, wherein the personal ATM comprises at least one processor and at least one data store, and wherein when the personal ATM is not in communication with the at least one wireless network port of the host ATM, the personal ATM is operative responsive to the at least one input, to store data corresponding to at least one offline transaction in the at least one data store of the personal ATM.
61. The apparatus according to claim 60, wherein when the personal ATM is in operative connection with the at least one wireless network port, the personal ATM is operative responsive to the stored data corresponding to the at least one offline transaction to cause cash to be dispensed from the cash dispenser of the host ATM.

62. The apparatus according to claim 60, wherein the personal ATM includes at least one virtual service, and wherein the data corresponding to the at least one offline transaction is stored responsive to the at least one virtual service.
63. The apparatus according to claim 59, wherein the personal ATM comprises at least one personal ATM service, and wherein the personal ATM is operative to deliver at least one personal ATM service proxy corresponding to the at least one personal ATM service to the host ATM through the at least one wireless network port.
64. The apparatus according to claim 63, wherein the personal ATM comprises at least one data store, and wherein the at least one data store includes data corresponding to electronic money, and wherein electronic money is enabled to be transferred between the personal ATM and the host ATM responsive to the at least one personal ATM service.
65. The apparatus according to claim 63, wherein the personal ATM comprises at least one data store, and wherein the data store includes data representative of at least one account number, and wherein the account number is enabled to be transferred between the personal ATM and the host ATM responsive to the at least one personal ATM service.

66. The apparatus according to claim 65, wherein the personal ATM includes a plurality of account numbers in the at least one data store, and wherein a selected one of the plurality of account numbers is transferred between the personal ATM and the host ATM responsive to at least one input to the at least one input device.
67. The apparatus according to claim 63, wherein the personal ATM comprises at least one data store, and wherein the at least one data store includes data representative of transactions conducted with the personal ATM, and wherein the at least one personal ATM service is operative to deliver the data representative of transactions to an accounting application.
68. The apparatus according to claim 63, wherein the personal ATM comprises a display, and wherein the display of the personal ATM is operative responsive to the at least one personal ATM service to output at least one menu.
69. The apparatus according to claim 68, wherein the host ATM is operative to dispense cash responsive to the at least one input being provided in response to the output of the at least one menu.
70. The apparatus according to claim 69, wherein the host ATM is operative to deliver at least one service proxy to the personal ATM through the at least one wireless network port.

71. The apparatus according to claim 70, wherein at least one feature in the at least one menu output through the personal ATM is generated responsive to the delivery of the at least one service proxy from the host ATM to the personal ATM.
72. The apparatus according to claim 63, wherein the host ATM comprises a lookup service, and wherein the at least one personal ATM service proxy is registered in connection with the lookup service.
73. The apparatus according to claim 59, wherein the personal ATM comprises at least one data store, and wherein the host ATM is operative to deliver a cash dispenser service proxy to the data store in the personal ATM through the at least one wireless network port, and wherein the at least one input is operative to cause cash to be dispensed from the cash dispenser by calling at least one withdrawal method of the cash dispenser service proxy.
74. A method comprising:
 - (a) receiving through at least one wireless network port of a host ATM at least one communication from a portable personal ATM;

- (b) dispensing cash from the host ATM responsive to receipt of the at least one communication.

75. The method according to claim 74, and prior to step (a) further comprising:

delivering through the at least one wireless network port to the personal ATM, a service proxy corresponding to at least one service of the host ATM.

76. The method according to claim 75, wherein in the delivering step the service proxy delivered is a service proxy for a cash dispenser service, wherein the cash dispenser service includes the cash dispenser.

77. The method according to claim 74 and further comprising:

- (c) delivering through the at least one wireless network port to the personal ATM, at least one interface page;

- (d) providing an output on a display of the personal ATM responsive to the at least one interface page.

78. The method according to claim 77 and prior to step (c) further comprising:

(e) delivering to the host ATM through the at least one wireless network port, from the personal ATM, at least one communication indicative of at least one display property associated with the display of the personal ATM, wherein the at least one interface page delivered in step (c) is delivered responsive to the at least one communication indicative of the at least one display property.

79. The method according to claim 78, wherein step (e) includes delivering a service proxy corresponding to a service of the personal ATM, to a lookup service in the host ATM.
80. The method according to claim 78, wherein the host ATM includes at least one data store, wherein the at least one data store includes data corresponding to a plurality of interface pages, including interface pages adapted to provide a variety of different outputs on different categories of displays, which displays may be included on a plurality of personal ATM types, and wherein in step (c) the at least one interface page delivered is suited to the category of display on the particular personal ATM which provides the message in step (a).
81. The method according to claim 74 and further comprising:

- (c) providing at least one input to at least one input device of the personal ATM, wherein the at least one communication in step (a) is produced by the personal ATM in response to the at least one input.

82. The method according to claim 81 and prior to step (b) further comprising:

- (d) storing in at least one data store in the personal ATM, data corresponding to the at least one input provided in step (b);
- (e) at a time subsequent to step (d) generating with the personal ATM the at least one communication received by the host ATM in step (a).

83. The method according to claim 74, and further comprising:

- (c) delivering electronic money from the personal ATM to the host ATM through the at least one wireless network port.

84. The method according to claim 74 and further comprising:

- (c) receiving electronic money from the host ATM with the personal ATM through the at least one wireless network port.

85. The method according to claim 84, and further comprising:

- (d) delivering electronic money from the personal ATM to the host ATM through the at least one wireless network port.

86. The method according to claim 74, and further comprising:

- (d) delivering from the personal ATM to the host ATM through the at least one wireless network port, at least one service proxy corresponding to a service in the personal ATM.

87. The method according to claim 86, and subsequent to step (c) further comprising:

- (b) registering the at least one service proxy delivered in step (c) in connection with a lookup service in the host ATM.

88. The method according to claim 74, and prior to step (a), comprising:

- (c) storing a plurality of account numbers in a data store of the personal ATM, and wherein the at least one communication in step (a) includes communication of at least one of the plurality of account numbers to the host ATM.

89. The method according to claim 88, and prior to step (c) comprising:
- (d) providing at least one input through at least one input device of the personal ATM, the at least one input corresponding to a selection of one of the plurality of account numbers, wherein in step (a) the one account number is communicated to the host ATM.
90. The method according to claim 74, and further comprising:
- (c) storing at least one record in a data store of the personal ATM including data representative of the dispensing of cash from the host ATM.
91. The method according to claim 90, and further comprising:
- (d) delivering the record stored in the data store in step (c) to an accounting application.
92. The method according to claim 74, wherein in step (a) the personal ATM comprises a cell phone.
93. The method according to claim 74, wherein in step (a) the personal ATM comprises a PDA.

94. The method according to claim 74, wherein in step (a) the personal ATM comprises a notebook computer.
95. The method according to claim 74, wherein in step (a) the personal ATM comprises a pager.
96. The method according to claim 74, wherein in step (a) the at least one wireless network port communicates RF messages.

Explanation of Amendments Presented

In the Specification

On page 5 in each of lines 4, 6, 8, 10, 12, 14 and 16 after "object of" the words --an exemplary form of-- have been inserted.

On page 6 in each of lines 1, 4, 7, 9, 11, 13, 15, 17, 19 and 21 after "object of" the words --an exemplary form of-- have been inserted.

On page 7 in each of lines 1, 3, 5, 7, 9, 12, 14, 16, 18 and 20 after "object of" the words --an exemplary form of-- have been inserted.

On page 8 in each of lines 1, 3, 5, 7, 9, 11, 13, 16, 18 and 20 after "object of" the words --an exemplary form of-- have been inserted.

On page 9 in each of lines 1, 3 and 5 after "object of" the words --an exemplary form of-- have been inserted.

On page 9, line 7 after "objects of" the words --exemplary forms of-- have been added.

On page 9, line 14 the words "the present invention encompasses" have been deleted and replaced with --embodiments of the present invention may encompass--.

On page 54, line 12 after "achieves" the words --at least one of-- have been added.

In the Claims

Claim 25 has been amended as follows:

25. (once amended) A method comprising [the steps of]:

- (a) connecting a transaction service in a host [an] automated transaction machine, wherein the transaction service includes at least one transaction function device, and wherein the host automated transaction machine includes a lookup service [and an input service including at least one input device];
- (b) registering the transaction service with the lookup service, including storing a copy of a service proxy in association with the lookup service;
- (c) acquiring by a personal ATM through a wireless network port on the host automated transaction machine, [for use in association with the interface service,] a copy of the service proxy from the lookup service;
- (d) providing at least one input to an [the] input device on the personal ATM;
- (e) invoking a method of the service proxy through operation of the personal ATM [interface service] responsive to the at least one input;
- (f) operating the transaction function device of the transaction service responsive to the method invoked.

Remarks

Changes to the Specification are made to clarify that the "objects" stated are not necessarily found in embodiments of the invention. No new matter has been added.

Claim 25 has been amended as shown. New claims 44-96 have been added. Claims 25 and 44-96 are now pending.

Charges For Additional Claims

Please charge the fees for 33 additional claims in excess of 20 (\$594.00) and any other fees due to the Deposit Account 09-0428.

Conclusion

Entry of the foregoing amendments prior to examination and favorable consideration of all the pending claims is respectfully requested.

The undersigned will be happy to discuss any aspect of the Application by telephone at the Examiner's convenience.

Respectfully submitted,



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